

Notice of Allowability

Application No.

10/663,904

Examiner

Hien X. Vo

Applicant(s)

PAXTON ET AL

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to application filed on 09/17/03.
2. ☐ The allowed claim(s) is/are 1-30.
3. ☒ The drawings filed on 05 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper.No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 09/13/04, 11/17/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 09/13/2004 and 11/17/2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Allowable Subject Matter

2. Claims 1-30 allowed.
3. The following is an examiner's statement of reasons for allowance:

The prior art disclose some claimed limitations. For example:

Loopstra et al. (U.S. Patent No. 5,969,441) disclose the positioning device can be used in a lithographic device for the displacement of a semiconductor substrate relative to an exposure system of the lithographic device and for the displacement of a mask relative to the exposure system.

Van Der Werf et al. (U.S. Patent No. 6,046,792) disclose an apparatus for imaging a mask pattern on a substrate a number of times in accordance with the step-and-scan principle, which apparatus comprises a mask holder arranged in a mask table, a substrate holder arranged in a substrate table and a projection system arranged between the mask table and the substrate table. This apparatus is

characterized by an interferometer system as described above for measuring the mutual position of the mask and the substrate constituting the first and the second object.

Schnur et al. (U.S. Patent No. 5,079,600) disclose a process for producing metal plated paths on a solid substrate of the kind which has polar functional groups at its surface, utilizing a self-assembling film that is chemically absorbed on the substrates surface. The solid substrate may, for example, be an insulator of the kind used for substrates in printed circuitry or may, as another example, be a semiconductor of the kind used in semiconductor microcircuitry. The chemical reactivity in regions of the ultra-thin film is altered to produce a desired pattern in the film. A catalytic precursor which adheres only to those regions of the film having enough reactivity to bind the catalyst is applied to the film's surface. The catalyst coated structure is then immersed in an electroless plating bath where metal plates onto the regions activated by the catalyst.

Georger, Jr. et al. (U.S. Patent No. 5,324,591) discloses patterned surfaces for the selective adhesion and outgrowth of cells are useful in cell culture devices, prosthetic implants, and cell-based microsensors. Such surfaces may be prepared by a deep ultraviolet photolithographic technique.

For claims 1, 11 and 21, the prior art does not teach singularly or in combination a lithographic system having exposure apparatus to expose substrates, pre-exposure apparatus to process substrates prior to exposure, and post-exposure apparatus to process substrates after exposure, said method comprising:

measuring attributes of substrates processed by said lithographic system;
assessing whether said measured substrate attributes are uniform based on pre-specified substrate profile information;
adaptively calculating corrective exposure data based on said measured substrate attributes upon determining that said measured substrate attributes are not uniform, said corrective exposure data configured to correct non-uniformities of said substrate attributes by regulating exposure dosage in said exposure apparatus of said lithographic system; and
exposing substrates in accordance with said corrective exposure data.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien X. Vo whose telephone number is (571) 272-2282. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Vo
December 11, 2004


John Barlow
Supervisory Patent Examiner
Technology Center 2800